

Weather Observer Guide

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Wind Direction and Speed Symbols

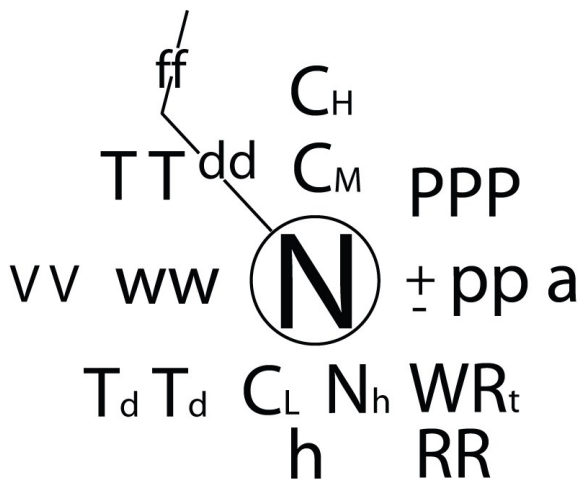
Wind direction (dd) and speed (ff) are plotted at the center of the station model plot. A wind barb (dd) extends from the direction the wind is blowing to the circle. In the example below the wind is from the northwest and speed "ff" is represented by flags on the wind barb. The length and number of flags indicates speed.

The chart to the right shows barbs, flags and speeds in statute miles per hour and knots (nautical miles per hour). A half line is 5, a whole line is 10, and a black triangle is 50. The flags represent the values of 5, 10, and 15 etc., but in practice they are 3–7, 8–12, and 13–17 knots. To do the math, miles per hour equals the speed in knots multiplied by 1.15. For convenience the miles per hour column converts knots to mph.

Practice plotting winds by making your own station model and plotting the wind barb and flags. Use the Beaufort Wind Scale found in "My Weather Guide" to estimate the wind speed. Before long you will be able to plot the wind without referring to the chart.

ff	(MILES) Statute Per Hour	KNOTS
☉	Calm	Calm
—	1 - 2	1 - 2
↘	3 - 8	3 - 7
↘↘	9 - 14	8 - 12
↘↘↘	15 - 20	13 - 17
↘↘↘↘	21 - 25	18 - 22
↘↘↘↘↘	26 - 31	23 - 27
↘↘↘↘↘↘	32 - 37	28 - 32
↘↘↘↘↘↘↘	38 - 43	33 - 37
↘↘↘↘↘↘↘↘	44 - 49	38 - 42
↘↘↘↘↘↘↘↘↘	50 - 54	43 - 47
▲	55 - 60	48 - 52
▲↘	61 - 66	53 - 57
▲↘↘	67 - 71	58 - 62
▲↘↘↘	72 - 77	63 - 67
▲↘↘↘↘	78 - 83	68 - 72
▲↘↘↘↘↘	84 - 89	73 - 77
▲↘↘↘↘↘↘	119 - 123	103 - 107

Symbolic Station Model



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Adapted from U.S. Weather Bureau, National Weather Service, World Meteorological Organization